Naval Probability of Program Success (PoPS)

Defense Acquisition University
Hot Topic Forum
Packard Conference Center, Fort Belvoir, VA

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24 February 2010

Outline

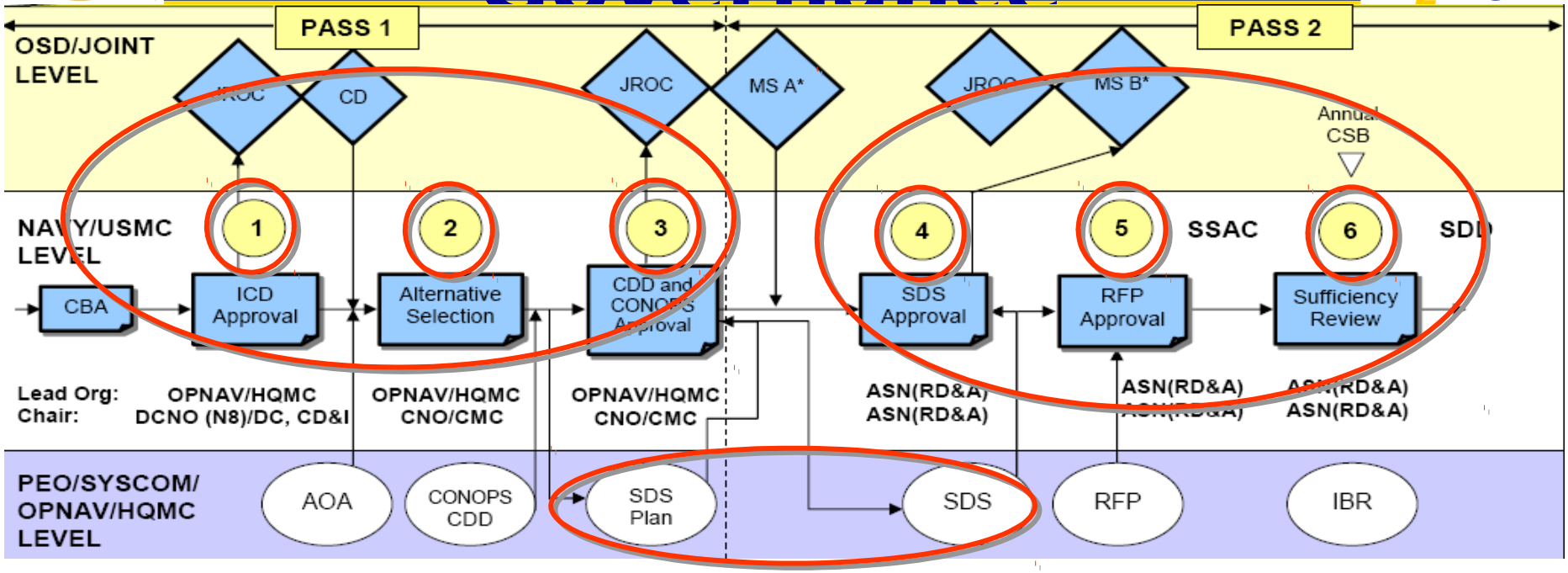
- **Background**
  - **DON Acquisition Governance**
  - **Core and PoPS (Probability of Program Success)**
- **PoPS v1.0**
  - **Structure**
  - **Products and Tools**
    - **Guidebook, Handbooks, Visuals, Templates**
- **How used**
  - **Individual Program**
  - **Portfolio of Programs**
  - **Identification of Systemic Issues**
- **Gate Review Path Forward**

DoN Acquisition Governance

- **The Secretary of the Navy**
  - **With CNO, CMC, ASNRDA, SYSCOM Commanders**
  - **Comprehensive review of the Acquisition process**
  - **Challenges in Program Planning and Execution.**
- **Enhance the Acquisition Governance process**
  - **Inject Early Senior Leadership**
  - **Continuous Engagement and Transparency**
- **Increase discipline during each phase of Program Maturity**
- **Codified by SECNAVNOTE on 26 February**

Two Pass / Six Gate

DoN Acquisition Governance



- **First Pass - Requirements Establishment**
- **Second Pass - Acquisition Execution**
- **System Design Specification**
  - **Capability and Performance Expectations**
- **Gates - Reviews to Assess Readiness to Proceed**
  - **Program Health Assessment at each Gate**

Gate Review Core and Program Health

Gate 5 (RFP)	Membership	Entrance Criteria	Goals/Exit Criteria	Briefing Content
Purpose: RFP Approval and MS B PDM (if applicable), Assess Affordability **Briefer:** PM	**Chair:** ASN(RD&A) **Principal:** VCNO/ACMC, ASN(FM&C), N00N, N8/DC, P&R/DC, CD&I, N1/DC, M&RA, N2/N6, N3/N5/DC, PP&O, N4/DC, I&L, DON CIO, PDASN, WE Lead &/or USFF/MARFOR, SYSCOM, PEO/DIRSSP **As required:** CNR, DC, Avn **Advisory:** ASN(RD&A)CHSENG, DASNs, N80, N81, N82, N81D, N091, USFF(N8), HQMC(CL, PA&E), OGC, DASN(FMB), DASN(C&E), SYSCOM Cost Director, Resource Sponsor, DirNIPO, OPPA, COTF/MCOTEA	1. Approved SDS and Technical Data Package 2. Approved Acquisition Strategy 3. Completed Cost Review Board 4. RFP has been reviewed by the Source Selection Authority (SSA) and reviewed by principal and advisory members/staffs 5. Approved TEMP 6. Approved alternate Live Fire Test and Evaluation (LFT&E) plan and an approved LFT&E waiver from full up testing 7. Completed Service review of Life Cycle Sustainment Plan	1. Approval for RFP release, and the next acquisition event, as authorized by the Acquisition Strategy 2. Authorization to proceed to Milestone B DAB or approval of Milestone B if MDA is ASN (RD&A) 3. Approve APB and Full Funding Certification for MS-B 4. Acknowledgement of CSB recommended capability changes. Approval to proceed to R3B/MROC, or CNO/CMC, for assessment and Service approval 5. Satisfactory review of Program Health	1. Review capability and threat 2. Acquisition Strategy 3. Program Schedule 4. RFP content and issues 5. All critical data deliverables and related intellectual property right issues addressed 6. Demonstration that financial, logistics, and Procurement functions have agreement on the appropriate and compliant level of Acquisition detail 7. MS-B SCP, assumptions, and cost [illegible] Curves by appropriation 8. Cost drivers by phase and by KP[illegible] include specific cost reduction strategies 9. TOC Planning 10. Cost arrayed in accordance with NCCA policy (i.e. MIL HDBK 881 and OSD CAIG protocols) 11. ILA results and Life Cycle Sustainment Plan 12. Updated assessment of doctrine, organization, training, materiel, leadership & education, personnel, & facilities (DOTMLPF) change requests 13. Job Task Analysis, Front End Analysis, Final Training System Plan, and Manpower Estimate 14. Summarized results of CDR (if applicable) 15. Environmental issues/impacts 16. Review the overall Test and Evaluation program and results of key test events 17. Interdependencies 18. Configuration Steering Board (CSB) [illegible] 20. Program Health

"Core" = Detailed information germane to the Gate Decision

- Will be included in SECNAVINST update

"PoPS" = Holistic view of overall program health and readiness to proceed

- Used during Gate Reviews and anytime Program Health is discussed

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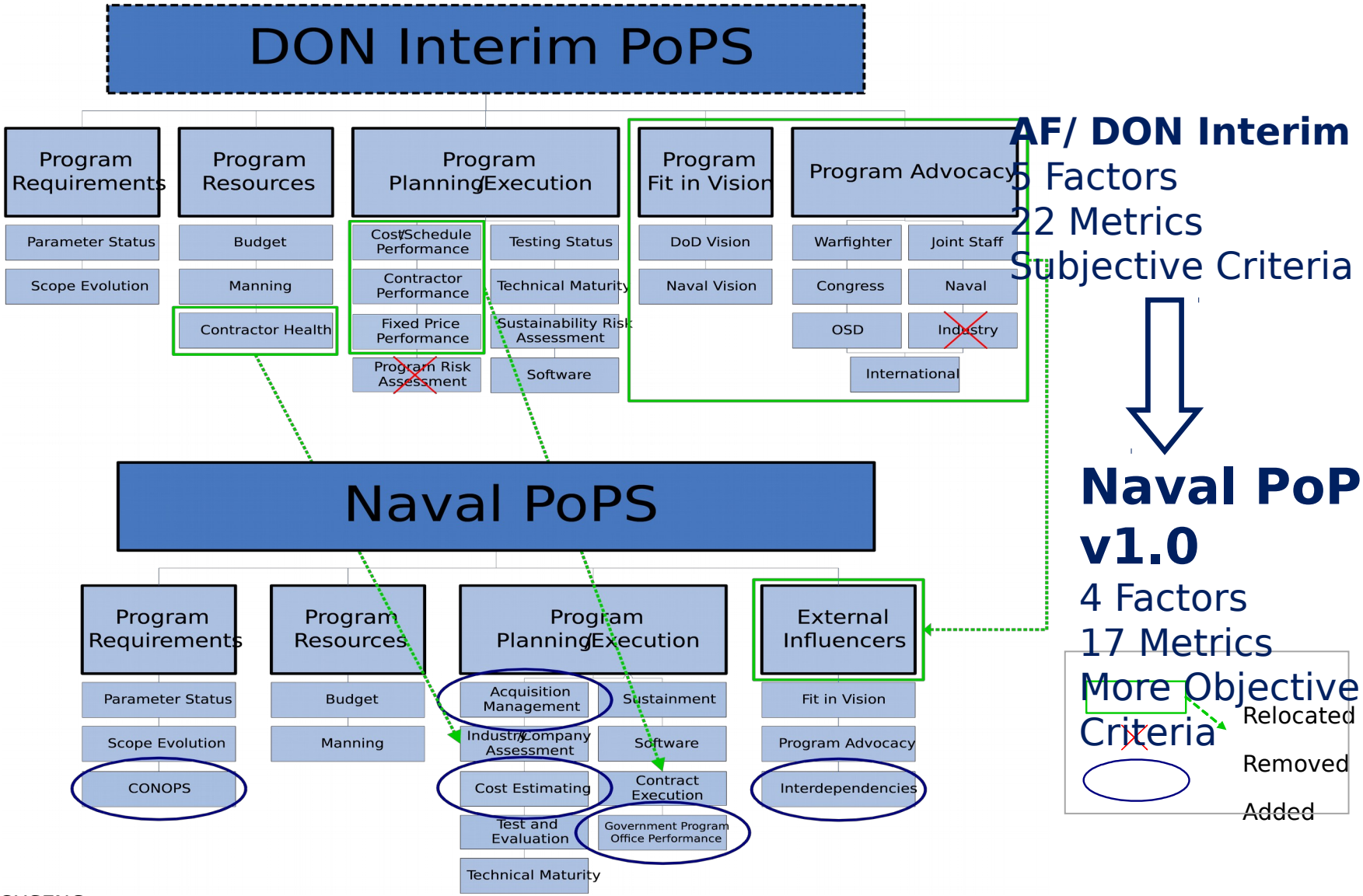
PoPS Implementation

- 19 Jan 2008 PDASN Memo - Interim use of Air Force "PoPS Spreadsheet Operations Guide" to Assess Program Health During Gate Reviews

- 6 October 2008 PDASN Memo - Naval PoPS Guidance
- Directed the use of the methods and tools described in the Naval PoPS Guidebook and supplemental Handbooks
  - Required for all DON Gate Reviews (ACATs I & II)
  - Shall serve as the standard DON method of representing the health of <u>all</u> ACAT Programs and any other programs subject to the DON Acquisition process
- Consistent means to assess program health

Naval PoPS v1.0 Leveraged Air Force PoPS



Framework Example

RDA CHIEF SYSTEMS ENGINEER

Gate 2

Program Planning/Execution

ACQUISITION MANAGEMENT

ACQUISITION MANAGEMENT: Status of program master schedule/Integrated Master Schedule (IMS), milestone documentation development, and progress toward defining derived requirements in the System Design Specification (SDS).

ACQUISITION MANAGEMENT CRITERIA

2.6.1 Program master schedule is current and includes all critical path activities. Key stakeholders have reviewed the master schedule and have determined that it is realistic and achievable based on planned activities.

G — Program master schedule is current and includes all critical path activities. Key stakeholders have reviewed the schedule and have determined that it is realistic and achievable based on planned activities.

Y — Program master schedule has been developed and reviewed by key stakeholders; required revisions are in work to ensure that the schedule is realistic, achievable, and includes all critical path activities.

R — Program master schedule has not been developed. –OR– Significant revisions are required but are not in work.

2.6.2 Milestone documentation[13] development is on or ahead of schedule. All required documentation will be signed within lead time necessary to meet Program Approval/Source Selection Decision Dates.

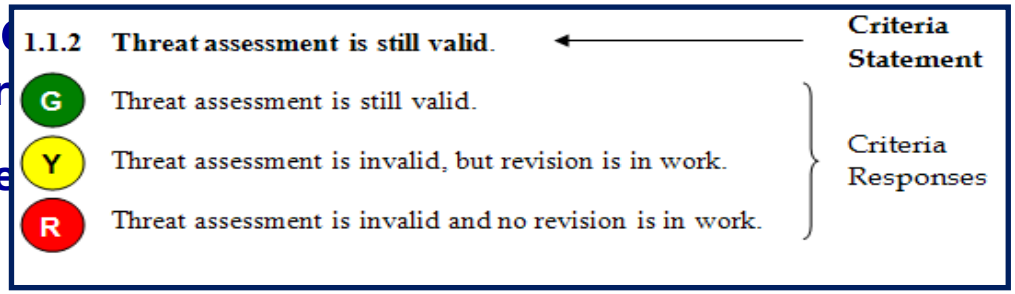
Factor

Metric

Criteria

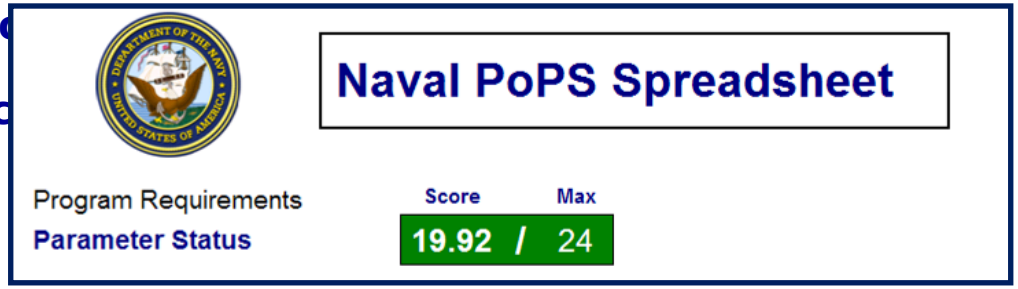
Naval PoPS v1.0 – R/Y/G Thresholds

- **Criteria Color Threshol**
  - **G** Green = 100% of max scor
  - **Y** Yellow = 66% of max score
  - **R** Red = 33% of max score


1.1.2 Threat assessment is still valid.
Criteria Statement
G Threat assessment is still valid.
Y Threat assessment is invalid, but revision is in work.
R Threat assessment is invalid and no revision is in work.
Criteria Responses

Example of Criteria Color Thresholds

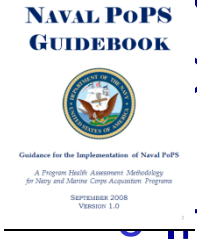
- **Metric, Factor and Program Health Color Thresholds**
  - **G** Green = 80-100% of max sc
  - **Y** Yellow = 60-<80% of max sc
  - **R** Red = <60% of max score

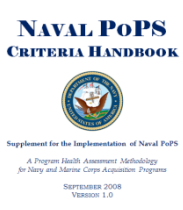


Example of Green Threshold for "Parameter Status" Metric

Naval PoPS v1.0 Products
Guidebook, Handbook, Visuals and Templates

- **Naval PoPS Guidebook**
  - Overview information on Naval PoPS methodology and implementation
- **Naval PoPS Criteria Handbook and Spreadsheets**
  - Complete listing of Program Health Criteria per Gate, per Metric
  - Instructions on completing Program Health Assessments in Criteria Spreadsheets
- **Naval PoPS Visuals Handbook, Spreadsheets, and Templates**
  - Complete set of Program Health Visuals Templates for each Gate Review
  - Instruction on creating Visual graphs/charts using Visuals Spreadsheets


NAVAL PoPS
GUIDEBOOK
Guidance for the Implementation of Naval PoPS
A Program Health Assessment Methodology for Navy and Marine Corps Acquisition Programs
SEPTEMBER 2008
VERSION 1.0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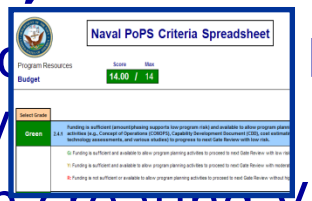

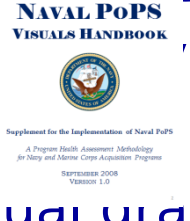
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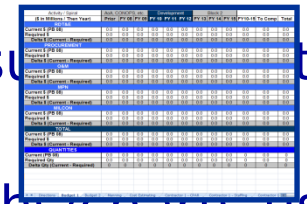

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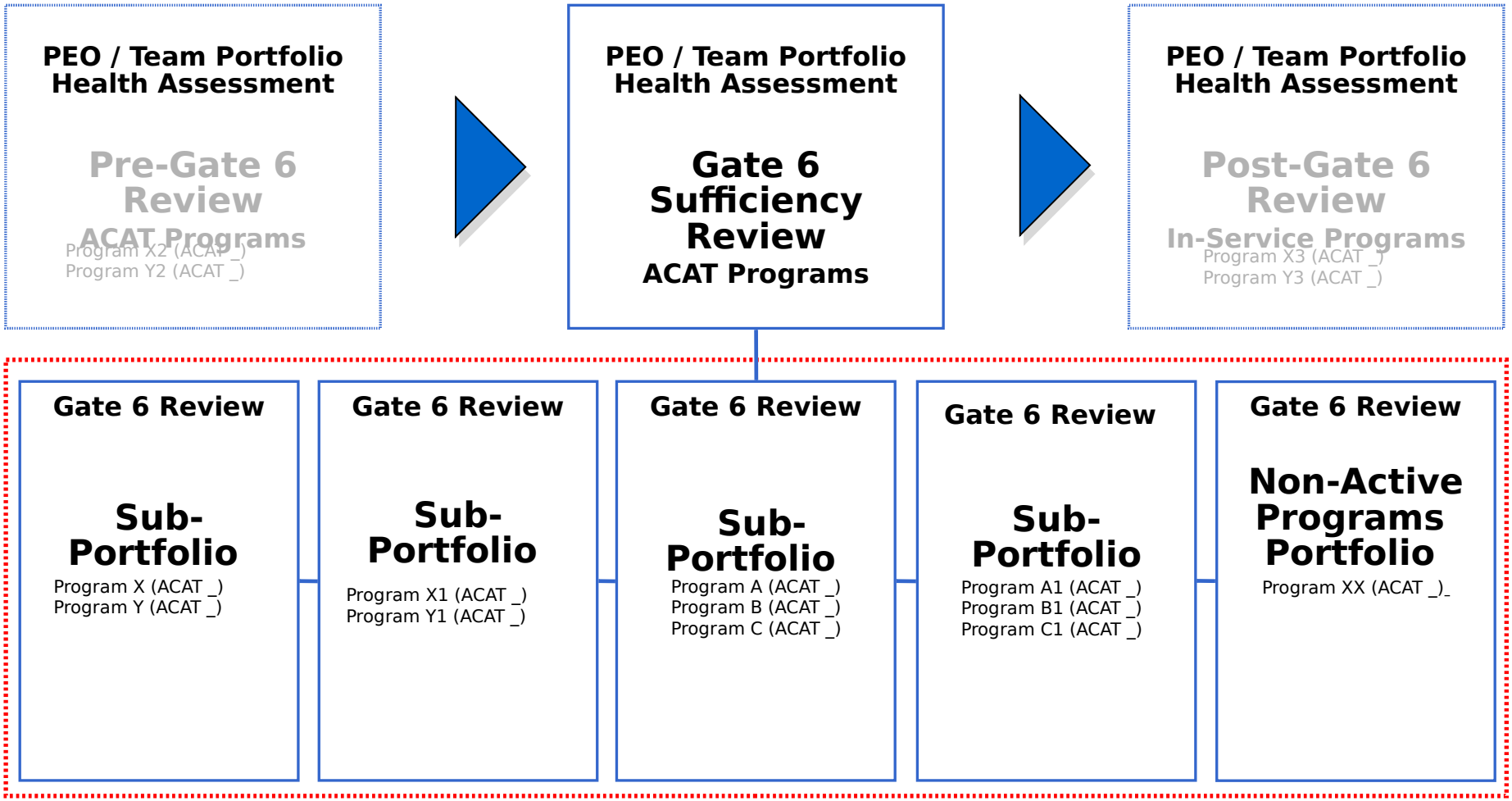
How DON is using Naval PoPS

- **Individual Program Reviews**
  - **Identify matters that affect Program Health**
- **PEO Portfolio Reviews**
  - **Health of all ACATS within a PEO**
- **Senior Leadership assistance**
- **Identify Systemic Issues**
  - **Action Item Tracking by PoPS Metrics**
  - **“Advocates” by PoPS Metrics**
    - **Establish action teams to address**

‘Portfolio of Portfolios’ Approach



Each program within a sub portfolio will complete a PoPS Gate 6 Program Health Assessment.

PoPS Other Uses

- **Establish action teams to address issues with Department implications**
  - **Mission**
  - **Industry / Company**
  - **Interdependencies**
  - **Manning**
- **Sufficiency**
  - **Budget / Cost Estimating / Life Cycle Costs**
  - **Sustainment**
- **“Advocates” by PoPS Metrics**

Systemic Issues Advocates

- Acquisition Management– Principal Civilian DASN (PCD)
- Manning – PCD
- Contract Execution DASN A&LM
- Industry / Company Assessment – DASN AIR and SHIPS/IWS)
- Sustainment – DASN A&LM
- Interdependencies – DASN C4I
- Budget – DASN M&B and EXW
- Cost Estimating – ASN EMB
- Government – DASN C4I
- Program Advocacy – DASN C4I
- Scope Evolution – DASN M&B with Product DASNs
- Parameter Status – RDA CHSENG
- T&E – DON T&E Executive
- Technical Maturity – RDA CHSENG
- Naval POPS – RDA CHSENG
- NOTPOPS Other – RDA CHSENG

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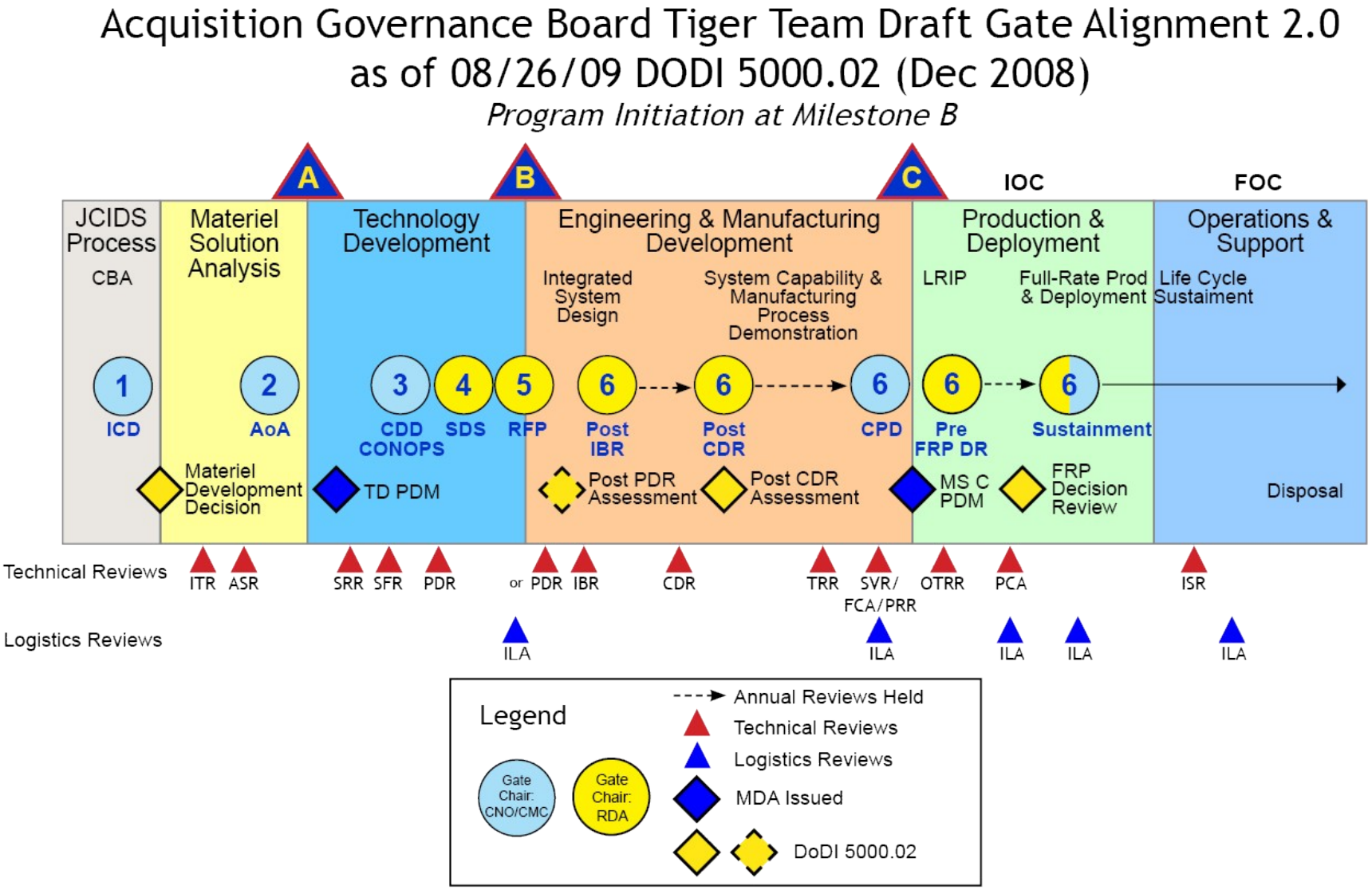
Purpose of Gate Review Process Update

- **Incorporate lessons learned and emergent initiatives**
  - **Core and PoPS**
- **Align Gates - Core and PoPS to**
  - **DODI 5000.02**
    - **Tech Dev Strategy, SE Plan, T&E Strategy, RMA**
    - **TOC and Cost Estimating**
    - **Sustainment / Logistic Planning and Execution**
  - **Weapon System Acquisition Reform Act**
    - **Cost Estimating**
    - **Development Testing**
    - **System Engineering**

Draft 2.0 Gate Alignment Initiation at MS B



Tiger Team Assignment

- **Assess Naval Gate Review Core Criteria and Templates**
- **Assess Naval Program Health Criteria and Templates**
- **Functional Sub Groups addressing emergent initiatives**
  - Sustainment (LCE)
  - Test & Evaluation
  - Risk Management
  - MOC
  - Open Architecture
  - Configuration Steering Board
  - Cost Estimating
  - Technology Protection
- **Determine needed revisions to**
  - Core Entrance / Exit Criteria and Templates
  - Program Health Criteria and Templates

Tiger Team Representatives

OPNAV Nils Anderson (N8), CAPT Sherman (N8), Rich Etheridge (N1), CAPT Ackart (N4), Edgar Bates (N6)

USMC Jim Ogershok (MCCDC), Doug Keeler (HQMC I&L)

SYSCOM Gail Goodman (SEA), Lola Scott (AIR), Bob Foster (SPAWAR), Paul Caussin (MCSC)

PEO/PMOs Earle Sheppard (Carrier), Geoff Tisone (AIR), John Metzger (C4I), Alex Gierber (Land)

Sustainment Charles Borsch (N4)

TOC Connie Bowling (N4)

Cost Estimating CAPT Barrata (NCCA)

Test & Evaluation (T&E) Steve Scrobo (RDA CHSENG)

Open Architecture Nick Guertin (PEO IWS)

Due Diligence

- **Adjudicated 1000+ comments to Core and PoPS Criteria and Templates**
- **Met with Acquisition Governance Executive Board Members**
  - **All supportive of changes**
  - **Concerns**
    - **Total Cost Estimating guidance**
    - **Cost Estimating capacity**
    - **Trust to get to the heart of**

Schedule

RDA CHIEF SYSTEMS ENGINEER

3 Feb 09

Governance Tiger Team

Gate Review Process Update Core & PoPS Established:

- **Alignment Sub-Group**
  - Gate alignment to new DODI
- **Functional Sub-Groups**
  - Sustainment
  - Cost Estimating
  - TOC
  - T&E
  - Open Architec

7 Apr

SYSCOM/PEO/HQMC/OPNAV Visits

- Inform Alignment / Functional Areas / Emergent Initiatives
- Collect feedback and recommendations in Core and Program Health (PoPS)

26 May

Tiger Team Adjudication of the collected recommendations (Core & PoPS)

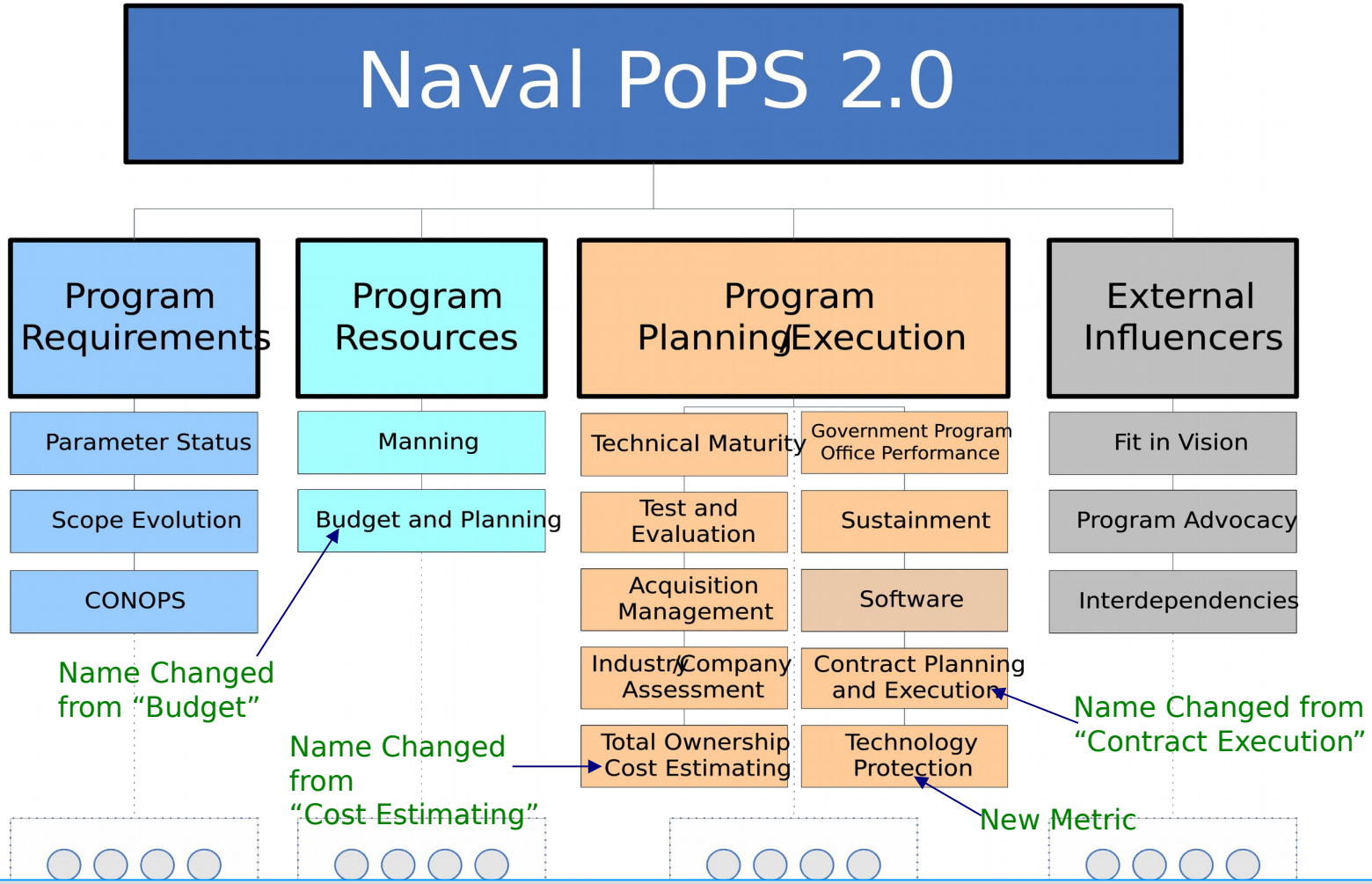
NOW

18 Jun | 26 Jun | 15 Jul | Aug

Core	Draft Content	Broad Base Review - Core Entrance / Exit / Briefing Content	Adjudication / Clean Up	Acquisition Governance Board	DON 5000 Update / ACMC/ RDA Memo	
	Draft Briefing Templates	Broad Base Review - Core Briefing Templates	Adjudication / Clean Up			
PoPS	Draft PoPS Criteria	Broad Base Review - PoPS Criteria	Adjudication / Clean Up	Acquisition Governance Board	VCNO/ ACMC/ RDA Memo	
	Draft PoPS Templates	Broad Base Review - PoPS Templates				

NOW

Naval PoPS v2.0
Gates 1 – 6 Sufficiency (Pre FRP DR)



otional representation of Criteria. Criteria are Gate- and Metric-specific. The number of Criteria will var

Proposed PoPS v2 Scores
(Gate 6 Sustainment scores are preliminary draft)

RDA CHIEF SYSTEMS ENGINEER

FACTORS	GATE 1 ICD	GATE 2 AoA	GATE 3 CDD/ CONOPS	GATE 4 SDS	GATE 5 RFP	GATE 6				
						Post IBR	Post CDR	CPD	Pre FRP DR	Sustainment
Program Requirements	31	35	36	22	14	13	13	12	12	8
Program Resources	17	17	17	20	20	16	15	14	14	17
Program Planning/ Execution	25	36	43	55	62	66	67	68	68	66
External Influencers	27	12	4	3	4	5	5	6	6	9
Total Points Max	100	100	100	100	100	100	100	100	100	100

METRICS	GATE 1 ICD	GATE 2 AoA	GATE 3 CDD/ CONOPS	GATE 4 SDS	GATE 5 RFP	GATE 6				
						Post IBR	Post CDR	CPD	Pre FRP DR	Sustainment
Parameter Status	24	19	17	14	9	9	9	9	9	8
Scope Evolution	0	5	8	6	4	3	3	2	2	N/A
CONOPS	7	11	11	2	1	1	1	1	1	N/A
Budget and Planning	13	13	13	14	14	10	9	9	9	10
Manning	4	4	4	6	6	6	6	5	5	7
Acquisition Management	N/A	3	6	9	9	7	6	6	6	N/A
Industry/ Company Assessment	N/A	4	3	3	3	3	2	2	2	N/A
Total Ownership Cost Estimating	10	10	10	14	14	10	9	8	8	9
Test and Evaluation	2	2	3	4	6	9	9	9	9	5
Technical Maturity	6	8	8	9	9	9	9	8	8	6
Sustainment	6	5	5	5	5	5	6	7	7	18
Software	N/A	N/A	N/A	3	3	5	7	7	7	6
Contract Planning and Execution	N/A	2	4	4	9	10	10	10	10	11
Government Program Office Performance	N/A	1	3	3	3	6	6	8	8	6
Technology Protection	1	1	1	1	1	2	3	3	3	5
Fit in Vision	8	5	1	1	1	1	1	1	1	N/A
Program Advocacy	13	6	2	1	1	1	1	1	1	N/A
Interdependencies	6	1	1	1	2	3	3	4	4	9
Total Points Max	100	100	100	100	100	100	100	100	100	100

Summary of PoPS Changes

- **Ensured Consistency with Core**
  - Criteria and Templates
  - Adjusting Metrics for Gate 6 Sustainment
- **Deleted extraneous text to streamline criteria statements**
- **Added Technology Protection Metric**
  - Increased emphasis on safeguarding DoD research, technology information, and applied knowledge
- **Updated Software Metric for Gates 4 and higher; removed from Gates 1-3**
  - More relevant in later stages
- **Adjusted Metric, Factor and Overall color thresholds**
  - Green range is now $\geq$ 90% ($\geq$ 80% in v1)
  - Yellow range is now $\geq$ 66 $\leq$ 90% ($\geq$60-<80% in v1)
- **Utilize "Critical Criteria" versus "Killer Blow"**
  - For select Criteria, if Red will turn Metric Red
- **Allow PEO to manually downgrade Metric, Factor, and Program Health colors on the PoPS framework**

Summary of Core Changes

- **Total Ownership Costs**
  - Affordability assessments earlier in program reviews
  - Address full breadth of costs, cost estimating practices and quality, and reduction efforts
- **Life Cycle Sustainment**
  - Operating and Support Strategy/Planning to reach expected service life
  - Developed new Sustainment Gate
  - Reinvigorate the ILA process
  - Inclusion of Sustainment Execution Reviews
  - Influences on Personnel, Training, Facilities, Maintenance
  - Inclusion of Logistic / Sustainment Reviews results
- **Operational Manpower Estimates**
  - Included Job Task Analysis, Training System Plan, Manning Documents
- **Program and Technical Baseline**
  - Earlier look at KPP / KSA feasibility
  - Emphasis on Tech Dev Strategies and System Engineering Planning / Execution
  - Inclusion of Technical Review results
- **T&E**
  - Increased emphasis on Development, Integrated, and Operational

Gate 5 RFP

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Gate 4 SDS CSB Templates

RDA CHIEF SYSTEMS ENGINEER

CLASSIFICATION (U)

PROGRAM NAME
GATE 4 (CORE)
DATE UPDATED

Configuration Steering Board (CSB)

Capability Changes • Baseline vs. Recommendation	Impact (Cost/Schedule)
Derived Requirement Changes • Baseline vs. Recommendation	Impact (Cost/Schedule)
Technical Configuration Changes • Baseline vs. Recommendation	Impact (Cost/Schedule)
Safety Changes • Baseline vs. Recommendation	Impact (Cost/Schedule)

Program Manager Recommendations

Provide Mitigation Plans in Backup

CL

CLASSIFICATION (U)

PROGRAM NAME
GATE 4 (CORE)
DATE UPDATED

Configuration Steering Board (CSB)

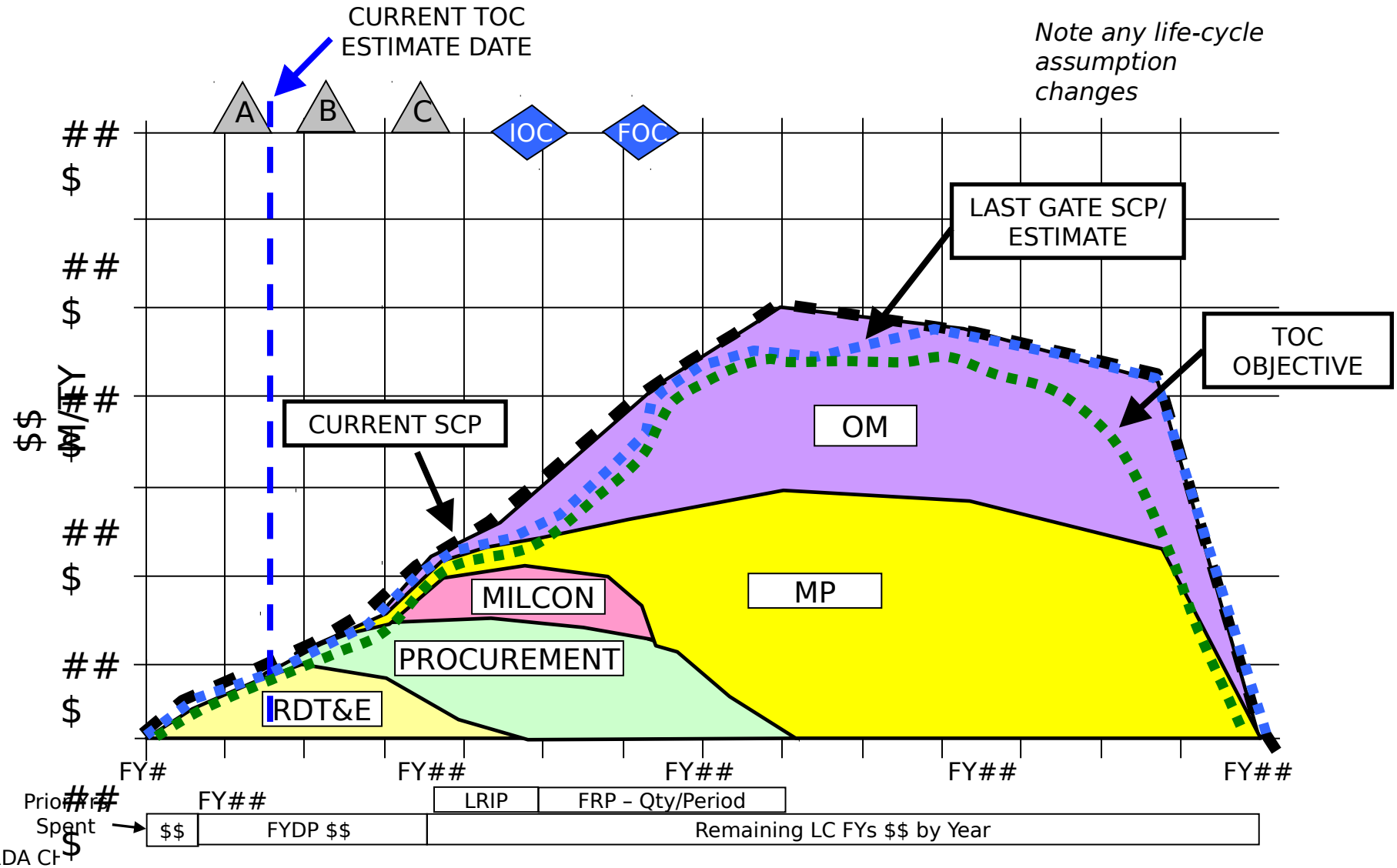
Potential De-scope Options • Vetted with Resource Sponsor with APB/Nunn-McCurdy implications (if approved APB exists)	Est. Cost Avoidance • LCC/TOC • Acquisition
Technology Insertion Opportunities (Including Technology Refresh) • BCA Backup required	Est. Schedule Avoidance

Program Manager Recommendations

CLASSIFICATION (U)

Updated TOC Profile

By Appropriation Across Projected Lifecycle



PoPS Metric: Budget and Planning

PoPS Criteria - (Gate 2 AoA)

2.4.2 Results of Analysis of Alternatives (AoA) cost affordability analysis contribute to a Gate Review comparison of life cycle cost among viable alternatives, to a first Total Ownership Cost (TOC) estimate and Service Cost Position (SCP) for the most viable alternative, and to the threshold and objective bounds of the future Capability Development Document (CDD) Ownership Cost Key System Attribute (OC KSA).

G — Results of AoA cost affordability analysis contribute to a Gate Review comparison of life cycle cost among viable alternatives, to a first TOC estimate and SCP for the most viable alternative, and to the threshold and objective bounds of the future CDD Ownership Cost KSA.

Y — Results of AoA cost affordability analysis present a comprehensive, life cycle cost assessment of a single most viable materiel alternative.

R — Results of AoA cost affordability analysis present a comprehensive assessment of unit or procurement cost of a single most viable materiel alternative.

PoPS Metric: Total Ownership Cost

PoPS Criteria - (Gate 4 SDS)

4.8.4 Cost Estimate Stability and Comparisons: The cost estimate for the Average Procurement Unit Cost (APUC), Program Acquisition Unit Cost (PAUC), and each appropriation has not significantly changed since the last Gate Review, Milestone (MS) Review, or other officially reviewed estimate. Independent Naval Center for Cost Analysis (NCCA) estimate or assessment [Acquisition Category (ACAT) 1 only] confirms the program estimate.

G

The NCCA (ACAT 1C/1A only) and Systems Command (SYSCOM) Cost Organization estimates have remained within 10% of the last Gate Review, MS Review, or other officially reviewed estimate; and have not exceeded the MS A estimate by more than 10%. The SYSCOM Cost Organization estimate is within 5% of the NCCA independent estimate (ACAT 1C/1A only). An updated service cost position is established and approved.

Y

The NCCA (ACAT 1C/1A only) or SYSCOM Cost Organization estimate has grown by more than 10% but less than 20% since the last Gate Review, MS Review, or other officially reviewed estimate; or has exceeded the MS A estimate by more than 10% but less than 20%. The SYSCOM Cost Organization estimate is not within 5% but is within 15% of the NCCA independent estimate (ACAT 1C/1A only). An updated service cost position is being established but is not approved.

R

The NCCA (ACAT 1C/1A only) or SYSCOM Cost Organization estimate has

PoPS Metric: Budget and Planning

PoPS Criteria - (Gate 4 SDS)

4.4.2 Acquisition, systems development, and sustainment strategies are all shown to be evolving in ways intended to mitigate Total Ownership Cost (TOC) growth; specifically targeting the Ownership Cost Key System Attribute (OC KSA) and the Program TOC Objective. Specific TOC initiatives are in strong evidence. Ongoing TOC analysis is reflected in Cost Review Board findings and changes to the Service Cost Position (SCP) and TOC Objective.

G — Acquisition, systems development, and sustainment strategies are all shown to be evolving in ways intended to mitigate TOC growth; specifically targeting the Ownership Cost KSA and the Program TOC Objective. Specific TOC initiatives are in strong evidence. Ongoing TOC analysis is reflected in Cost Review Board findings and changes to the SCP and TOC Objective.

Y — Acquisition, systems development, and sustainment strategies are all shown to be evolving in ways intended to mitigate TOC growth; specifically targeting the Ownership Cost KSA and the Program TOC Objective. TOC-related initiatives are in evidence.

R — Unclear that acquisition, systems development, and sustainment strategies involve specific TOC initiatives to mitigate life cycle ownership cost. The SCP and the TOC Objective are not reviewed and revised in tandem. No evidence of life cycle or TOC affordability analysis in ongoing cost estimates.

PoPS Metric: Budget and Planning

PoPS Criteria - (Gate 6 Sufficiency

6.cpd.4.2 Systems design and development is mitigating life cycle TOC as planned. Total Ownership Cost (TOC) analysis, based on systems development, the Logistics Requirements and Funding Summary (LRFS), and changes in Capability Development Document (CDD) Key Performance Parameter (KPP) thresholds, has contributed to adjustment of the Capability Production Document (CPD) Ownership Cost Key System Attribute (OC KSA) parameter threshold/objective and update to the Service Cost Position (SCP) and TOC Objective.

G Systems design and development is mitigating life cycle TOC as planned. TOC analysis, based on systems development, the LRFS, and changes in CDD KPP thresholds, has contributed to adjustment of the CPD Ownership Cost KSA parameter threshold/objective and update to the SCP and TOC Objective.

Y TOC analysis, based on systems development, the LRFS, and changes in CDD KPP thresholds, has contributed to adjustment of the CPD Ownership Cost KSA parameter threshold/objective and update to the Service Cost Position (SCP) and TOC Objective.

R Systems Acquisition strategy execution and systems design and development, as progressing, is not affected by plans to mitigate life cycle TOC. CPD KPP thresholds have changed from the CDD, but the Ownership Cost KSA has not changed.

Proposed Scoring Methodology

- **Refined Criteria statements and responses to reduce subjectivity and prevent misinterpretation**
- **Made Metric, Factor and Program color thresholds more stringent to address "sea of green" concern**
  - **Increased Green to ≥90% (vice ≥80%)**
  - **Reduced Yellow to ≥66-<90% (vice ≥60-<80%)**

	PoPS v1	*Proposed PoPS v2*
Metric, Factor, & Program	≥80%	≥90%
	≥60-<80%	≥66-<90%
	<60%	<66%
Criteria Scoring	100%	100%
	66%	66%
	33%	30%

C + C = M

1 Green Criteria + 1 Red Criteria = Yellow Metric

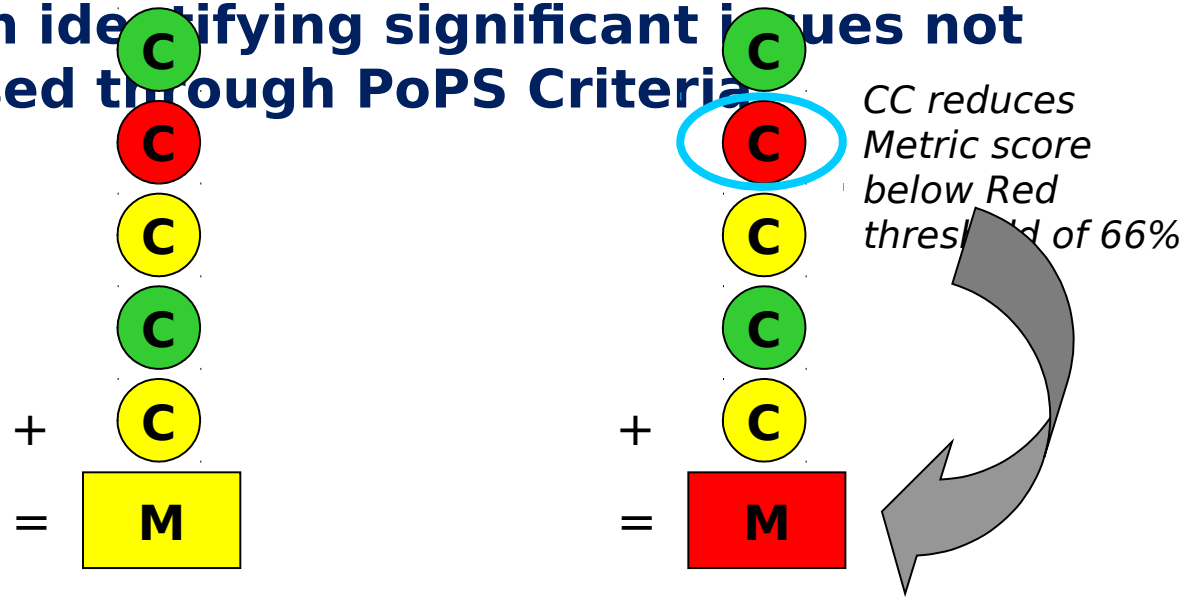
C + C = M

1 Green Criteria + 1 Red Criteria = Red Metric

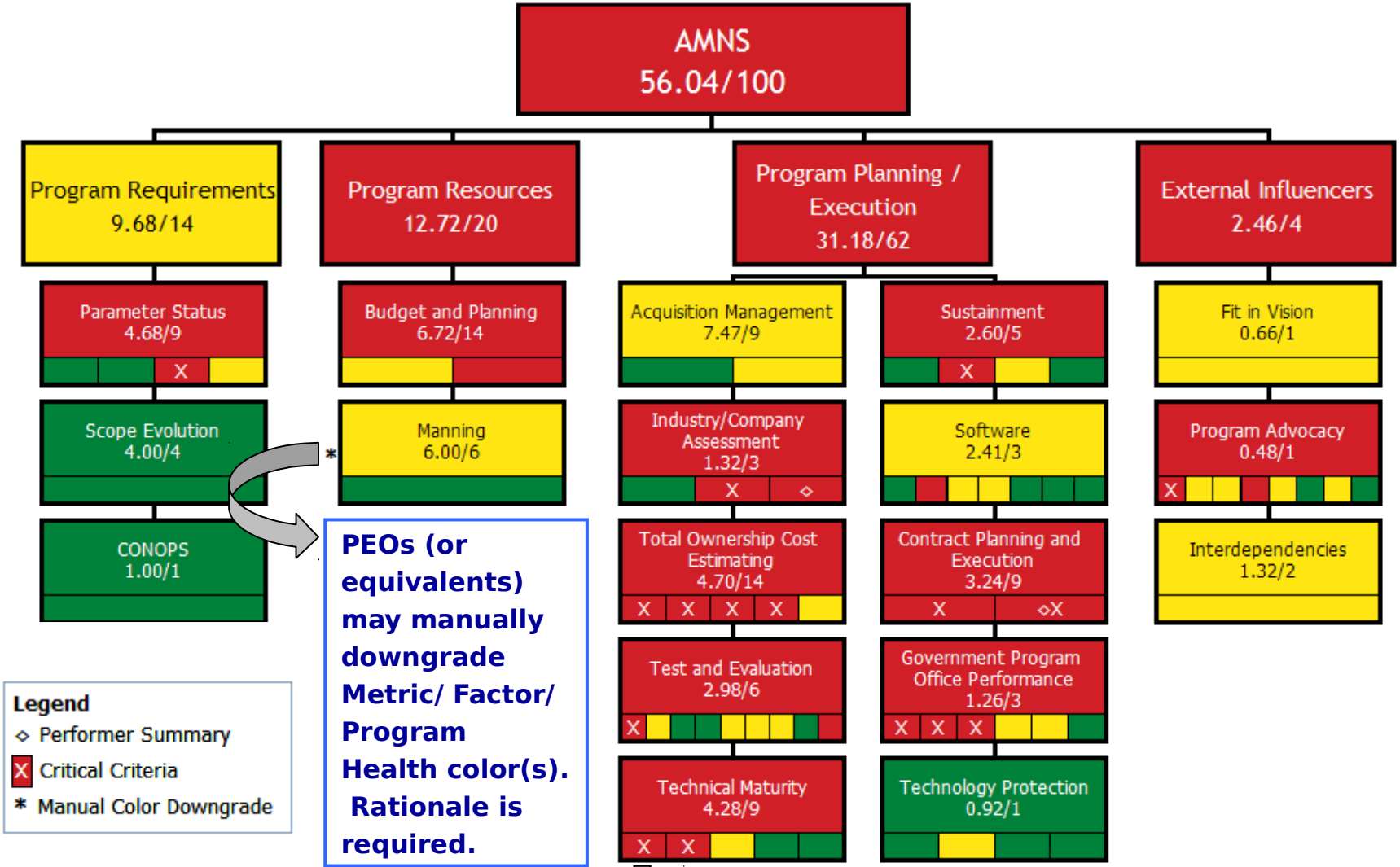
Proposed Scoring Methodology

- **Replaced "Killer Blow" Metrics with Critical Criteria**
  - **Critical Criteria rated Red will automatically turn Metric to Red by reducing score below 66%**
    - **Does NOT automatically turn Factor and Program Red**
- **Allowed PEOs/PMs the ability to manually downgrade Program, Factor, and Metric colors to Yellow or Red after assessment is completed**
  - **Assist in identifying significant issues not assessed through PoPS Criteria**

Critical Criteria denoted by 'X'



PoPS v2.0 Scoring
(Gate 5 Example with all Critical Criteria Red)



Naval PoPS v2.0 Implementation

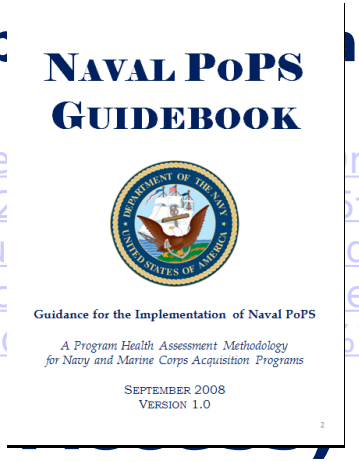
- **RDA/VCNO/ACMC joint Memorandum "Implementation of Naval Probability of Program Success Version 2.0"**
  - Effective within 60 days from the date of this memorandum (January/ February 2010) and supersedes all Naval PoPS v1 documents
  - PoPS v2.0 Guidebook and the associated implementation database tool are applicable to all programs subject to the DON acquisition governance process
- **PoPS v2.0 shall be used to develop the sole authoritative program health input in any of the following circumstances:**
  - Any time any resourcing or requirements decision assessment tool requires a program health input
  - In a continuous manner any time the health of a program is discussed in any of the formal decisional forums
  - In responding to requests for information or in any other informal progress reviews conducted by the spectrum of interested parties including MDAs, PEOs, PGDs, DASNs, Resource and Requirements Officers, OSD and Congressional Staffs
- **Naval PoPS v2.0 guidance and related supporting material can be accessed and downloaded from**

Activities Remaining

- **Gate 6 Sustainment Core and PoPS Criteria and Templates completion and release**
- **Program Health ASN RDA Information System -Dashboard web-based capability implementation**

Gates 1 to 6 Sufficiency (Pre FRP DR)

- **Core Criteria and Briefing Templates Complete**
  - **Details of Core Criteria and Templates by Gate - URL:** https://nserc.navy.mil/asnrda/asn_rda_pops/pops20dev/Step%202%20Draft%20Documents/Forms/AllItems.aspx?RootFolder=%2fasnrda%2fasn%5frda%5fpops%2fpops20dev%2fStep%202%20Draft%20Documents%2f0%20Draft%20Core%20and%20Briefing%20Templates%20in%20Exec%20Staffing&FolderCTID=&View=%7b7AEE306D%2d7B71%2d4326%2d999E%2dDEEC9A1DF241%7d
- **PoPS Criteria and Templates Complete**
  - **Details of PoPS Criteria and Temp…te - URL:** https://nserc.navy.mil/asnrda/asn_rda_pops/pops20de…raf t%20Documents/Forms/AllItems.aspx?RootFolder=%2…5frda%5 fpops%2fpops20dev%2fStep%202%20Draft%20Docu…d%20PoPS%2 0v2%20Criteria%20and%20Templates%20in%20Exec…erCTID=& View=%7b7AEE306D%2d7B71%2d4326%2d999E%2…%7d


NAVAL POPS GUIDEBOOK
Guidance for the Implementation of Naval PoPS
A Program Health Assessment Methodology for Navy and Marine Corps Acquisition Programs
SEPTEMBER 2008
VERSION 1.0

- **PoPS Tool Complete (MS …)**

Naval PoPS Summary

- **Draft Naval PoPS v2 Release Memo - Guidance**
  - **Direct the use of the methods and tools**
  - **Serve as the standard DON method of representing the health of all ACAT Programs and any other programs subject to the DON Acquisition process**
  - **Consistent means to assess program health**
  - **Used any time program health is discussed (day to day)**
- **All files are available through RDA DASHBOARD and should be saved using the naming conventions**

Questions?

Framework Components

- **Program Health:** The current state of an acquisition program's requirements, resources, planning and execution activities, and external influencers, and how those factors are impacting the program's ability to deliver a capability within specific constraints.

- **Factors:** These are Program Health organizational categories. The four Factors are: Program Requirements, Program Resources, Program Planning and Execution, and External Influencers.

- **Metrics:** Major sub-categories that collectively define the scope of a particular Factor. There are 18 Metrics in the Naval PoPS 2.0 Program Health framework. Metrics are the basic building blocks of Naval PoPS.

- **Criteria:** Parameters (qualitative and quantitative)

4 Factors

- **Program Requirements:** Capability requirements (defined in the Initial Capabilities Document [ICD]/Capability Development Document [CDD]/Capability Production Document [CPD]) that the program must meet within approved cost and schedule constraints.
- **Program Resources:** Funding and manning that is allocated to the program to accomplish planning and execution activities.
- **Program Planning/Execution:** Activities performed by the Program Office, contractors and government performers to fulfill program requirements.

Program Requirements Factor – Metrics

Parameter Status. Progress toward defining capability requirements [ICD, CDD, CPD] and meeting those requirements through the achievement of KPP/KSA/other attribute threshold values. Also measures requirements traceability and the validity of the threat assessment.

Scope Evolution. Stability of performance parameters/other attributes/quantities from the established baseline and the impact of changes on total program cost and schedule.

Program Resources Factor – Metrics

Budget and Planning. Sufficiency of funding (amount and phasing) across the FYDP based on last approved budget controls and degree of deviation from the current cost estimate. Also assesses cost drivers as a component of the TOC Strategy.

Manning. Stability and adequacy of Resource Sponsor and Program Office staffing (availability, skills, experience, certification and training).

Program Planning and Execution Factor – Metrics (slide 1 of 3)

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Acquisition Management. Completeness of program master schedule, status of milestone documentation development, and progress toward defining derived requirements in the System Design Specification (SDS).

Industry/Company Assessment. Gate 2 assesses market research activities, industrial base health, and an understanding of industrial implications for cost, schedule and technical risks. For major contracts (work performed by contractors only), Gate 3 onward assesses each company's financial health, financial systems, and manufacturing/production capabilities.

Total Ownership Cost Estimating. Measures the adequacy of the elements required to produce sound cost estimates: program description information, cost data, cost estimating process, cost estimate stability and comparisons, and cost estimate measures.

Test and Evaluation. Progress toward defining and executing the TES and TEMP. Ability to evaluate the system's technical and operational maturity and performance, adequacy of test resource requirements, status of identified technological risks, system deficiencies, and effectiveness, suitability, and

Program Planning and Execution Factor – Metrics (slide 2 of 3)

Technical Maturity. Assessment of the maturing system and sub-systems design. Assessment of the technical maturity of CTEs in accordance with the approved TDS. Evaluation of the supporting engineering processes, engineering documentation, and lessons learned to achieve an Operationally Effective and Suitable System.

Sustainment. Progress toward defining and executing the sustainment strategy, and the resource adequacy applied toward those life cycle sustainment activities. Sustainment is conducted as specified by an evolving Life Cycle Sustainment Plan (LCSP) and attachments. The Integrated Logistics Assessment (ILA) is the milestone focus, by which decision makers determine LCSP execution effectiveness and affordability.

Software. Software management and engineering (including translation and allocation of system capabilities to software, software code development, software-related risk management, etc.); applies to software activities by government agencies and/or contractors that are integral to program deliverables. Evaluated in terms of software size and stability, cost and schedule, organization, and quality.

Program Planning and Execution Factor – Metrics (slide 3 of 3)

Contract Planning and Execution. Performance of major contractors and/or government performers as measured by Earned Value Management (EVM), Contractor Performance Assessment Reports (CPARs)/Informal Performance Assessment Reports (IPARs), staffing adequacy, and work package completion.

Government Program Office Performance. Progress toward defining and executing intra-government requirements; responsiveness to deliverable submissions; delivery of facilities, funding, GFE/GFI in accordance with scheduled requirements; Configuration Management/CCB and RMB effectiveness.

Technology Protection [proposed new Metric for v2]. Status and progress toward the safeguarding of DoD research, technology information, and applied knowledge associated with the program. Functional disciplines include threat assessments and intelligence/counterintelligence, Anti-Tamper, Supply Chain Risk Management, and physical and electronic security across government and Defense Industrial Base partners.

External Influencers Factor – Metrics

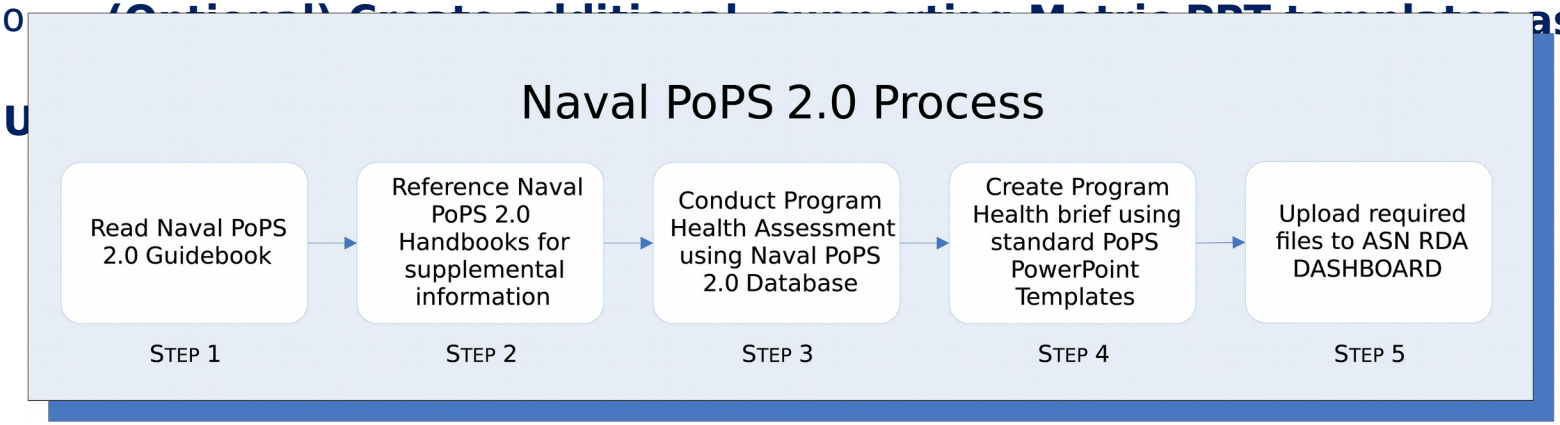
Fit in Vision. Program alignment with current documented Office of the Secretary of Defense (OSD) guidance and Navy/Marine Corps strategies.

Program Advocacy. Support demonstrated by key stakeholders: Congressional; OSD; DON/CNO/CMC; Joint Staff and COCOM; FFC/MARFOR; International Partners; Other Services (for Joint programs).

Interdependencies. Interface issues affecting inter-related programs; determines whether dependent

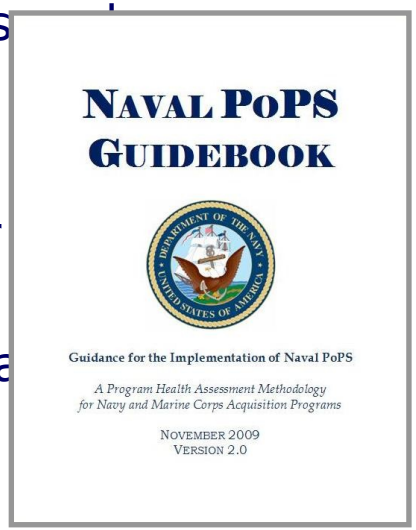
Naval PoPS 2.0 Process Steps

1. Read the Naval PoPS 2.0 Guidebook.
2. Reference the Naval PoPS 2.0 Handbooks for supplemental information.
3. Open the Naval PoPS 2.0 Database to conduct a new Program Health assessment, or to modify an existing assessment that has not been finalized. Conduct the Program Health Assessment and generate the Summary PowerPoint slide.
4. Create the Naval PoPS brief for Program Health using the standard Metric PowerPoint Templates (Gate-specific).
   - Open the PowerPoint file for the upcoming program review.
   - Update the title slide template with your program information.
   - Copy and paste the Summary PowerPoint slide (see Step 3 above) onto the Summary Slide template in the PowerPoint brief.
   - Modify required Metric PowerPoint slide templates.
   - (Optional) Create additional supporting Metric PPT templates as
5. U


Naval PoPS 2.0 Process
Read Naval PoPS 2.0 Guidebook
Reference Naval PoPS 2.0 Handbooks for supplemental information
Conduct Program Health Assessment using Naval PoPS 2.0 Database
Create Program Health brief using standard PoPS PowerPoint Templates
Upload required files to ASN RDA DASHBOARD
STEP 1
STEP 2
STEP 3
STEP 4
STEP 5

Steps 1 and 2: Naval PoPS Overview

- **Guidebook**
  - Overview of the Naval PoPS methodology, tools and process
- **Criteria Handbook**
  - Complete listing of Program Health Criteria per Metric
  - Critical Criteria per Gate and a detailed explana about the PoPS 2.0 scoring methodology
- **Template Handbook**
  - Notional templates with dummy data for every Gate
  - Interactive mouse overs that explain template component
- **Database Ha**
  - Step-by-st al PoPS 2.0 Databa


NAVAL POPS
GUIDEBOOK
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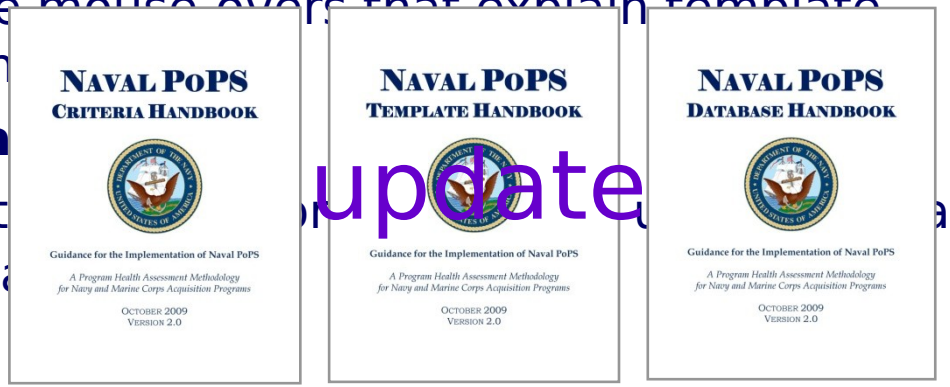
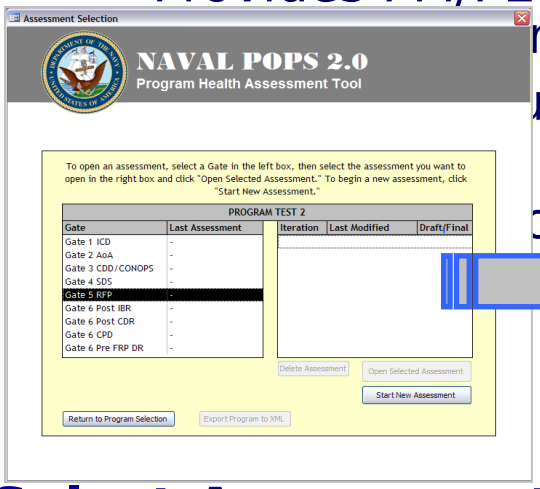
NOVEMBER 2009
VERSION 2.0

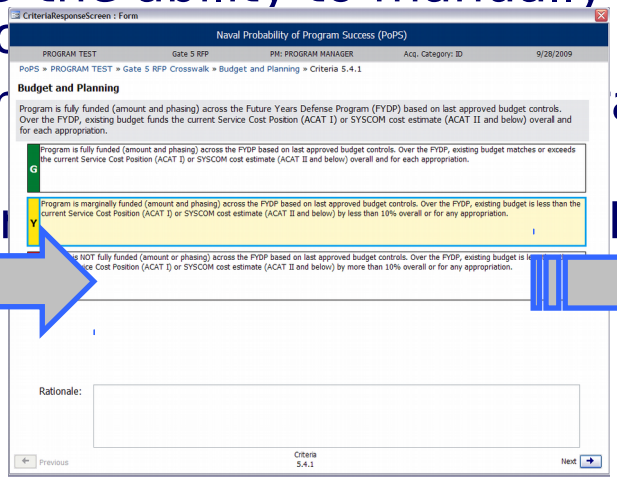
update

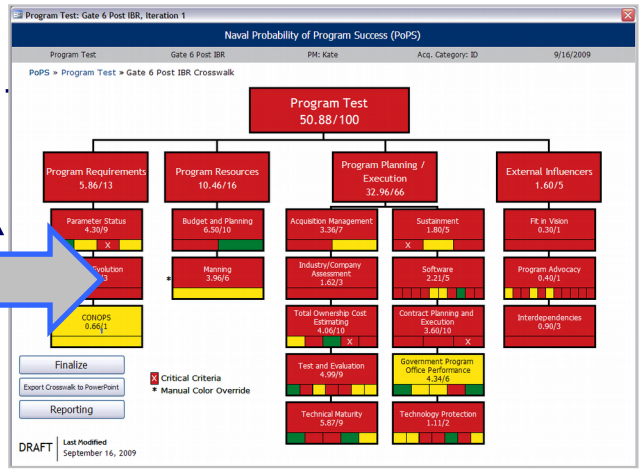

NAVAL POPS
CRITERIA HANDBOOK
Guidance for the Implementation of Naval PoPS
A Program Health Assessment Methodology for Navy and Marine Corps Acquisition Programs
OCTOBER 2009
VERSION 2.0
NAVAL POPS
TEMPLATE HANDBOOK
Guidance for the Implementation of Naval PoPS
A Program Health Assessment Methodology for Navy and Marine Corps Acquisition Programs
OCTOBER 2009
VERSION 2.0
NAVAL POPS
DATABASE HANDBOOK
Guidance for the Implementation of Naval PoPS
A Program Health Assessment Methodology for Navy and Marine Corps Acquisition Programs
OCTOBER 2009
VERSION 2.0

Step 3: Program Health Assessment

- **The Naval PoPS 2.0 Database is the key tool for Naval PoPS implementation and is required to assess each Program Health Criteria**
  - Stores multiple program health assessments for multiple programs
  - Automatically populates PoPS crosswalk with scores and color codes and exports to PPT
  - Displays colors down to the Criteria level for increased visibility into the specific issues
  - Provides PM/PEO the ability to manually override


Assessment Selection
NAVAL POPS 2.0
Program Health Assessment Tool
To open an assessment, select a Gate in the left box, then select the assessment you want to open in the right box and click "Open Selected Assessment." To begin a new assessment, click "Start New Assessment."
PROGRAM TEST 2
Gate
Last Assessment
Iteration
Last Modified
Draft/Final
Gate 1 ICD
Gate 2 AoA
Gate 3 CDD/CONOPS
Gate 4 SDS
Gate 5 RFP
Gate 6 Post IBR
Gate 6 Post CDR
Gate 6 CPD
Gate 6 Pre FRP DR
Delete Assessment
Open Selected Assessment
Start New Assessment
Return to Program Selection
Export Program to XML


CriteriaResponseScreen : Form
Naval Probability of Program Success (PoPS)
PROGRAM TEST
Gate 5 RFP
PM: PROGRAM MANAGER
Acq. Category: ID
9/28/2009
PoPS » PROGRAM TEST » Gate 5 RFP Crosswalk » Budget and Planning » Criteria 5.4.1
Budget and Planning
Program is fully funded (amount and phasing) across the Future Years Defense Program (FYDP) based on last approved budget controls. Over the FYDP, existing budget funds the current Service Cost Position (ACAT I) or SYSCOM cost estimate (ACAT II and below) overall and for each appropriation.
G
Program is fully funded (amount and phasing) across the FYDP based on last approved budget controls. Over the FYDP, existing budget matches or exceeds the current Service Cost Position (ACAT I) or SYSCOM cost estimate (ACAT II and below) overall and for each appropriation.
Y
Program is marginally funded (amount and phasing) across the FYDP based on last approved budget controls. Over the FYDP, existing budget is less than the current Service Cost Position (ACAT I) or SYSCOM cost estimate (ACAT II and below) by less than 10% overall or for any appropriation.
Rationale:
Previous
Criteria 5.4.1
Next



Select Assessment **Answer Criteria** **Generate Crosswalk**

Step 4: Develop Metric PPT Templates

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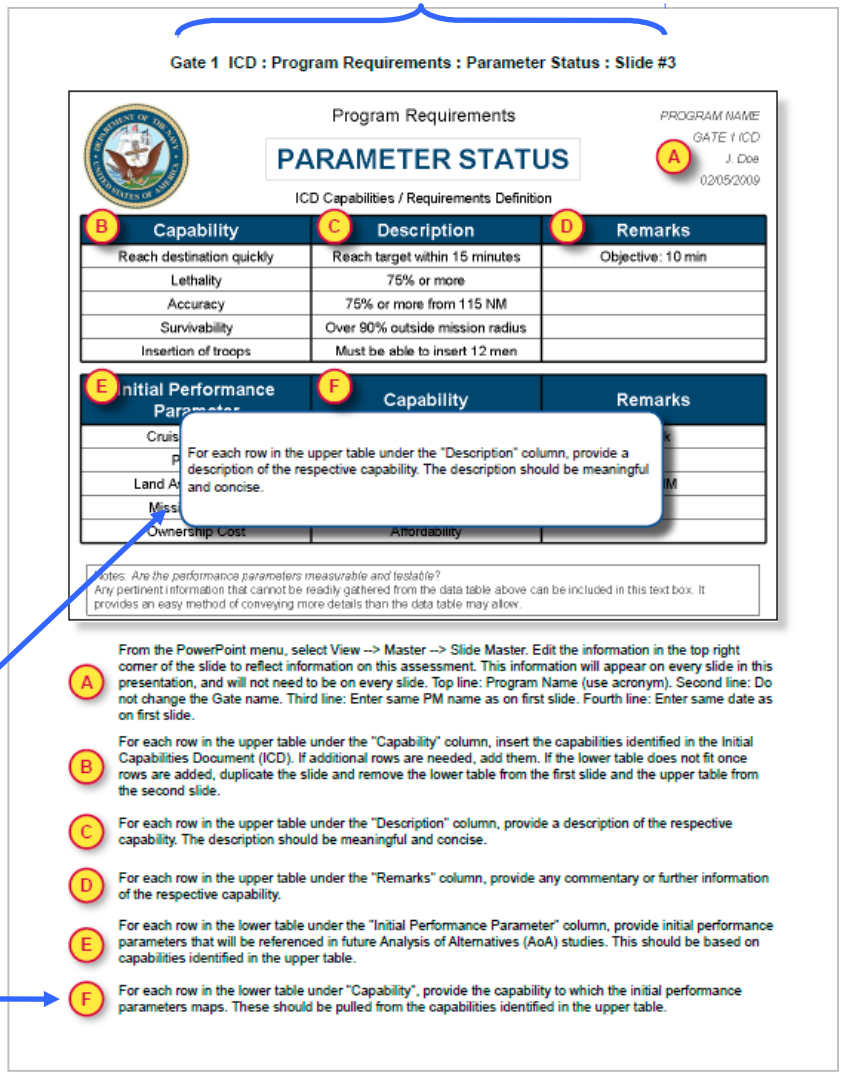
Gate: Factor: Metric: Slide Identification

- The Naval PoPS 2.0 Template Handbook provides templates with dummy data for every Gate to provide users with an understanding of how to complete the templates.
  - o Interactive mouse-overs explain key components.
- For some templates, there are MS Excel embedded charts for ease of data entry.


Gate 1 ICD : Program Requirements : Parameter Status : Slide #3
Program Requirements
PARAMETER STATUS
ICD Capabilities / Requirements Definition
PROGRAM NAME
GATE 1 ICD
J. Doe
02/05/2009
A
B Capability
C Description
D Remarks
Reach destination quickly
Reach target within 15 minutes
Objective: 10 min
Lethality
75% or more
Accuracy
75% or more from 115 NM
Survivability
Over 90% outside mission radius
Insertion of troops
Must be able to insert 12 men
E Initial Performance Parameter
F Capability
Remarks
Ownership Cost
Affordability
For each row in the upper table under the "Description" column, provide a description of the respective capability. The description should be meaningful and concise.
Notes: Are the performance parameters measurable and testable?
Any pertinent information that cannot be readily gathered from the data table above can be included in this text box. It provides an easy method of conveying more details than the data table may allow.
A From the PowerPoint menu, select View --> Master --> Slide Master. Edit the information in the top right corner of the slide to reflect information on this assessment. This information will appear on every slide in this presentation, and will not need to be on every slide. Top line: Program Name (use acronym). Second line: Do not change the Gate name. Third line: Enter same PM name as on first slide. Fourth line: Enter same date as on first slide.
B For each row in the upper table under the "Capability" column, insert the capabilities identified in the Initial Capabilities Document (ICD). If additional rows are needed, add them. If the lower table does not fit once rows are added, duplicate the slide and remove the lower table from the first slide and the upper table from the second slide.
C For each row in the upper table under the "Description" column, provide a description of the respective capability. The description should be meaningful and concise.
D For each row in the upper table under the "Remarks" column, provide any commentary or further information of the respective capability.
E For each row in the lower table under the "Initial Performance Parameter" column, provide initial performance parameters that will be referenced in future Analysis of Alternatives (AoA) studies. This should be based on capabilities identified in the upper table.
F For each row in the lower table under "Capability", provide the capability to which the initial performance parameters maps. These should be pulled from the capabilities identified in the upper table.

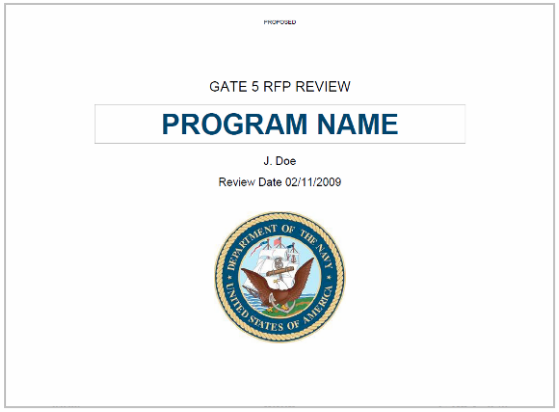
Move the cursor over any letter bubble to view the corresponding explanation.

The explanations are also provided below the

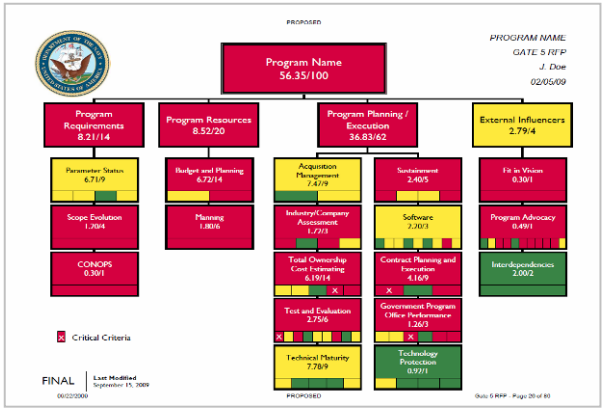
Step 4 (cont.): Develop Metric PPT Templates

- Briefing templates are Gate- and Metric-specific
- Three key components: Title Slide, Program Health Crosswalk, and Metric Templates
  - o Program Health Crosswalk slide automatically generated by PoPS 2.0 Database
- User should modify PPT templates to make them meaningful to the program without losing the intent of the templates
- Additional, supporting templates can be added at the discretion of the PM/user

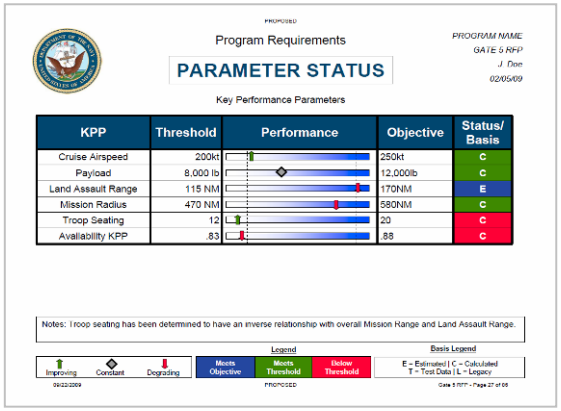
Title Slide Template



Program Health Crosswalk



Metric Visual PPT Template



Step 5: Upload files to RDA DASHBOARD

- The Naval PoPS 2.0 Database Handbook provides instructions for uploading/downloading files to and from RDA DASHBOARD
- Program Health assessment must be marked "FINAL" in the Database before uploading to RDA DASHBOARD
  - "Final" files CANNOT be modified
- PoPS 2.0 Database will allow user to import finalized program health assessment files
  - User must first download files from RDA DASHBOARD and save to hard drive
- "Enter once/use many" capability being pursued for the IT/IM enterprise solution